



## Product Datasheet

<b>Product Name</b>	Granulocyte Macrophage-Colony Stimulating Factor Human
<b>Cata No</b>	CB500319
<b>Source</b>	<i>Insect Cells</i>
<b>Synonyms</b>	CSF-2, MGI-1GM, GMCSF, Pluripoietin-alpha, Molgramostin, Sargramostim.

### Description

GMCSF is a cytokine that controls the production, differentiation, and function of granulocytes and macrophages. The active form of the protein is found extracellularly as a homodimer. This gene has been localized to a cluster of related genes at chromosome region 5q31, which is known to be associated with interstitial deletions in the 5q-syndrome and acute myelogenous leukemia. Other genes in the cluster include those encoding interleukins 4, 5, and 13.

GM-CSF stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes.

GM-CSF Human Recombinant produced in insect cells is a single, glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 14477 Dalton.

GM-CSF is fused to a C-terminal His -tag (6x His) and purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

### Biological Activity

The ED50 as determined by the dose-dependant

stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) is < 0.1 ng/ml, corresponding to a Specific Activity of  $1 \times 10^7$  IU/mg.

### Purity

Greater than 98.0% as determined by:

1. Analysis by RP-HPLC.
2. Analysis by SDS-PAGE.

### Formulation

The protein was lyophilized with no additives.

### Stability

Lyophilized Granulocyte Macrophage Colony Stimulating Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GMCSF should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

### Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Ala-Arg-Ser.

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